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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/410,044	10/01/1999	ROLAND BODIN	040020-149	6306

27045 7590 10/22/2004

ERICSSON INC.
6300 LEGACY DRIVE
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PLANO, TX 75024

EXAMINER

SEAL, JAMES

ART UNIT PAPER NUMBER

2135

DATE MAILED: 10/22/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/410,044

Applicant(s)

BODIN, ROLAND



Examiner

James Seal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08765269r3.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Action is in response to applicant's correspondence of 02 April 2004
2. Amendment to specification has been entered.
3. New title is acceptable.
4. Amended claim 5 is pending.

Specification

5. With the new title and amendment to specification, objection is withdrawn.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5¹ rejected under 35 U.S.C. 103(a) as being unpatentable over Tan (US 4502137), and further in view of Kage (US 4791669).

As per claim 5, a method for transmitting information between a plurality of users (Abstract) on a network (Figure 2) using time division frames further divided into a plurality of blocks using a multiple access system (that is a multiplexing technique in which a channel is dividing among different users allocating to each of them a time slot in a repeating cycle, TDMA, See Figure 2, Abstract), each personal station on the communication net being computer or phone (Column 3, line 36). Thus Tan teaches

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that each personal station may have a phone. Tan is silent on limitation of applying his invention to wireless phones, and to the use on encryption of individual blocks.

The limitation of encrypting information S using a logic operation (an XOR element 10 Figure 1) and a modified pseudo-random number stream Y to form the encrypted signal Z as shown in Figure 1. The modified pseudorandom sequence Y (Column 2, lines 44-49) is produced in two stages, the first of which is using the encryption key ($x_1 x_2 x_3 \dots x_n$; the encryption key variables (key bits) , Column 3, line 39-40) and the Frame number as determined by the Frame counter 15 (Column 4, line 24). The Frame counter bits $b_1 b_2 b_3 \dots b_q$ from the *current* frame are imputed into the encoder memory and then into the encoder selector circuit where the information is combined with *selected* encryption key variables to complete the first stage of the generation of Y (see figure 1, Column 4, lines 42-46). Thus both the encryption key and ordinal number of the frame are inputs into this stage of the generation of Y . Figure 3 of Kage shows the TDATA signal together with the encrypted data blocks of Z . Each Y depends on the particular data block and hence on the specific time slot for that block. So the final stage in the generation of Y consist of modifying Y by selecting the key bits according to the time slot of the data block (Column 2, lines 56-58; Column 3, lines 47-50; 53-55; 64-65). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have modified the phone at each personal station in the Tan system with the suggest in the Kage system to be mobile as most users today prefer mobile phone. In addition Kage system teaches encryption of message which would be necessary for the user's privacy. Claim 5 is rejected.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Response to Arguments

Applicant's arguments filed 2 April 2004 have been fully considered but they are not persuasive. The applicant argues that the encryption as provided by Kage fails to show a two stage process in which the pseudorandom stream is dependent on the key bits and the frame number and finally modifying Y according to the time slot of the data block. As discussed above and in figure 1 and above Kage does disclose a Y dependent on the key bits and frame number (bits) and a second stage in which the key bit selection and hence the number of bits is dependent on the time slot of the block in question. As Kage points out this method allows for more possibilities than if the key bit selection was independent of the time slot. With regards to the motivation for combining, Tan already provides personal stations for the user which includes phones.

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With the preference for mobile phones that today's user has come to expect, it would have been obvious for one of ordinary skill in the art to have modified the Tan personal station to allow for mobile phone.

Conclusion

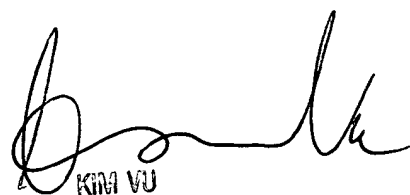
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Seal whose telephone number is 703 308 4562. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gail Hayes can be reached on 703 305 9711. The fax phone numbers for the organization where this application or proceeding is assigned are 703 746 7239 for regular communications and 703 746 7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 3900.

JWS

Jws
October 18, 2004


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100